

**Notice of Allowability****Application No.**

09/966,583

**Examiner**

Jon Chang

**Applicant(s)**

CHANDRASEKHAR, ADITH

**Art Unit**

2623

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to filing of application, 9/28/01.
2. ☒ The allowed claim(s) is/are 1-53.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 1/10/02
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
Jon Chang  
Primary Examiner

**Examiner's Amendment**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with <sup>David Novais 33324</sup> ~~Mark Bocchetti~~ (Reg. No. ~~31330~~) on December 3, 2004.

The application has been amended as follows:

In the claims

In claim 36, at line 1, remove "method" and replace with --computer program--.

**Reasons for Allowance**

2. The following is an examiner's statement of reasons for allowance:

Claim 1 requires identifying areas having a substantially uniform gray level, determining an effective darkness value for each area, and selecting the dark area corresponding to the identified area having the highest effective darkness value. These features, in combination, are neither disclosed nor suggested by the prior art of record. Claims 22 and 43 recite similar limitations. Claims 2-11 depend from claim 1. Claims 23-32 depend from claim 22. Claims 44-53 depend from claim 43.

Claim 12 requires, *inter alia*, determining an average gray level for each sampled column, and determining a partial derivative of the average gray level. These features in combination with the other elements of the claim are neither disclosed nor suggested

by the prior art of record. Claim 33 recites similar limitations. Claims 13-21 depend from claim 12. Claims 34-42 depend from claim 33.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Comment Regarding Drawings***

3. The replacement drawing sheets submitted January 15, 2002, has been received and entered. The Examiner notes, however, a replacement for drawing sheet 4/4, containing Figures 5A-5F, does not appear to have been submitted. The Examiner suggests that a replacement for drawing sheet 4/4 be submitted.

#### ***References Cited***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 4,730,221 to Roetling teaches identification of constant grey components in an image.

U.S. Patent 5,144,456 to Sakano discloses an image processing apparatus and method which derives a background corrected gradation level from predetermined gradation level relating to a pixel of concern and an averaged gradation level.

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U.S. Patent 5,189,710 to Holt discloses an apparatus and method for generating a video binary signal which utilizes white peak and black minimum values to calculate a threshold.

U.S. Patent 5,297,221 to Masuda et al. discloses an image signal processing apparatus which corrects an image signal based on judged maximum and minimum portions.

U.S. Patent 5,347,594 to Grimaud teaches utilizing minima and maxima in an image for contrast processing.

U.S. Patent 6,064,762 to Haenel discloses a system and method for separating foreground information from background information on a document which divides an image of a document into segments, and determines a frequency distribution of extreme values of intensity in each segment.

"Blotches Correction and Contrast Enhancement for Old Film Pictures" by Tenze et al. teaches contrast enhancement for picture restoration.


#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon Chang whose telephone number is (703)305-8439. The examiner can normally be reached on M-F 8:00 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703)308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jon Chang  
Primary Examiner  
Art Unit 2623

Jon Chang  
December 3, 2004